

Notice of Allowability

Application No.

09/786,813

Examiner

Karla Moore

Applicant(s)

MCNIE, MARK E

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the communication filed 10/28/03.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☒ The drawings filed on 06 January 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John R. Lastova on 8 July 2004.

The application has been amended as follows:

1) At page 14, line 9: Replace the phrase "Figure 3" , with "Figures 3a-3d".

2) At page 14, line 12: Replace the phrase "Figure 4", with "Figures 4a-4d".

3) The abstract has been amended (formatted) to read:

EX.
AMEND.
7/12/04
KW

Abstract

A method of micro-machining comprising providing a primary region of at least a first material which contacts a second material at at least one end portion thereof, the method comprising providing an infill material on to the second material, patterning and etching said infill material to form a hole through the infill material to the second material, depositing the first material on to said infill material so that the at least one portion of the first material contacts the second material through the hole. The method can be used to provide a track bridging suspended portions of micro-machined structures. Also a method of narrowing and sealing top portions of channels cut into a wafer is disclosed.

Allowable Subject Matter

1. Claims 1-23 are allowed.
2. The following is an examiner's statement of reasons for allowance: The prior art of record fails to fairly teach or suggest a micro-machining method of bridging a channel with at least one bridging material; the channel being provided in a substrate comprising a second material and the method comprising the steps of: a) at least partially filling and completely covering said channel with an infill material at an uppermost region of said channel; b) **patterning and etching said infill material to form a hole through the infill material to the second material**; and c) depositing the at least one bridging material on to said infill material so that at least one portion of the at least one bridging material contacts the second material through the hole.
3. The Chau reference was relied upon for teaching the bolded feature; however, upon reconsideration Examiner does not feel that the reference fairly teaches this limitation, as the method is not drawn to commensurate subject matter (the material at issue is not actually infill material, as it is not "filling" anything). Therefore, the rejection is withdrawn. No other reference was located that taught or suggested this limitation and provided the requisite motivation.
4. With respect to Applicant's argument regarding "at least partially filling and completely covering said channel", Examiner still feels that the Sparks reference fairly teaches this limitation as recited in the presently pending claims. Applicant's claims recite a channel formed in a substrate, not a channel formed by a substrate and a suspended portion. Therefore, since the suspended portion is also located in the channel, the infill material only partially fills the channel because the suspended portion fills part of the channel, as well. If the channel were recited as being formed by a suspended portion and a substrate, then Applicants argument would be absolutely valid, but it is not. However, as noted above the rejection has been withdrawn for other reasons and therefore the "partially vs. completely filling" issue is mute.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 571.272.1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

km
12 July 2004

P. Hassanzadeh
Parviz Hassanzadeh
Primary Examiner
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